UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,759	06/12/2000	Anjana Agarwal	Agarwal 10-5-7-16	4750

7590   03/30/2004

Fay, Sharpe, Fagan, Minnich & McKee, LLP
1100 Superior Avenue
Seventh Floor
Cleveland, OH 44114-2518

EXAMINER
PEESO, THOMAS R

ART UNIT	PAPER NUMBER
2132	17

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01/14/2000, 02/20/2003 & 04/28/2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-12</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-12</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
           application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
    since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
    37 CFR 1.78.
    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
    reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>15, 16</u>.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This action is in response to the application filed 01/14/00.

2. Claims 1 - 12 have been examined.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1 – 12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 7 of Phillips U.S. Patent No. 6,425,121 in view of Malin et al. USPN 5,732,192.

Phillips discloses in claim 1, establishing a busy indicator at a given program object, the busy indicator signifying whether the given program object is currently executing its associated function (37:5 – 10, see validated);

in response to the occurrence of the given program object's triggering event, testing the respective busy indicator(37:5 – 10, see program and object and validating property);

if the busy indicator signifies that the given program object is currently executing, blocking the given program object from re-executing in response to the triggering event (37:5 – 10, see blocking);

if the busy indicator signifies that the given program object is not currently executing, permitting the given program object to execute in response to the triggering event (36: 65 – 67, see in validating and permitting).

Phillips doesn't explicitly disclose circular flow paths. However, Malin does disclose this feature in analogous art (15:15 – 20). Therefore, it would have been obvious to one or ordinary skill in the art at the time the invention was made to combine Phillips and Malin because, being able to resolve and detect flow paths would enable system to detect ambiguity (Malin, 16:13 – 16).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 7 & 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Seidl USPN 5,710,896.

Regarding claim 1, Seidl anticipates a storage medium containing program instructions readable by a computer for detecting and resolving circular flow paths disposed within a flow diagram (Col.11: 14 – 16, for circular path) representing the logical operation of a corresponding application program, the flow diagram formed by interconnecting a plurality of symbolic representations of

program objects, the program objects configured to execute associated functions in response to corresponding triggering events, the readable program instructions comprising program instructions for:

establishing a busy indicator at a given program object, the busy indicator signifying whether the given program object is currently executing its associated function (Col.10:60 – 65, also see 11: 11 –14, snap enter event (busy));

in response to the occurrence of the given program object's triggering event, testing the respective busy indicator (Col.11: 13 – 17, see "feedbacks to the user that the connection cannot be made");

if the busy indicator signifies that the given program object is currently executing, blocking the given program object from re-executing in response to the triggering event (Col.11: 8 – 13, see connection dragged back and locking up and invalid for blocking);

if the busy indicator signifies that the given program object is not currently executing, permitting the given program object to execute in response to the triggering event (Col.11: 18 – 20, see explore other possibilities).

Regarding claim 2, the storage medium of claim 1, wherein the busy indicator is a counter and the program instructions for testing comprise program instructions for:

adjusting the counter (Col.11:35 – 40, see loop) ;

and after the program instructions for adjusting, determining whether the counter exceeds a predetermined threshold, wherein an exceedance of the predetermined threshold signifies that the given program object is currently executing (Col. 14: 1 – 10, see background grid is activated for threshold and test).

Regarding claim 7, the program object version of claim 1, see rationale as previously discussed above.

Regarding claim 8, the program object version of claim 2, see rationale as previously discussed above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis

for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described
as set forth in section 102 of this title, if the differences between the subject matter sought to
be patented and the prior art are such that the subject matter as a whole would have been
obvious at the time the invention was made to a person having ordinary skill in the art to which
said subject matter pertains. Patentability shall not be negatived by the manner in which the
invention was made.

8. Claims 3 – 5 & 9 - 11 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Seidl USPN 5,710,896 as applied in claim 2, in view of Sinha

USPN 5,437,029.

Regarding claim 3, Seidl discloses all the claimed limiations as applied in

claim 2. Seidl doesn't explicitly disclose initializing the counter to a null value,

and wherein the program instructions for adjusting comprise program instructions

for incrementing the counter. However, Sinha disclose this feature in a similar

configuration (FIG.7, 504 also see associated text). Therefore it would have

been obvious to one of ordinary skills in the art at the time the invention was

made to combine Seidl and Sinha because, initializing and incrementing the

count would enable a more accurate tracking of the instructions.

Regarding claim 4, Seidl discloses all the claimed limiations as applied in

claim 3. Seidl doesn't explicitly disclose after the program instructions for

determining whether the counter exceeds a predetermined threshold,

decrementing the counter. However, Sinha disclose this feature in a similar

configuration (FIG.9, 703 also see associated text). Therefore it would have

been obvious to one of ordinary skills in the art at the time the invention was

made to combine Seidl and Sinha because, decrementing the counter when the

expected limit would make the program more manageable.

Regarding claim 5, the storage medium of claim 4 Sinha further discloses

wherein the program instructions for incrementing the counter increment the

counter by 1, the program instructions for decrementing the counter decrement

the counter by 1, and the predetermined threshold is 1 (Sinha, FIG.7, 504, and FIG.9, 703).

Regarding claim 9, the program object version of claim 3, see rationale as previously discussed above.

Regarding claim 10, the program object version of claim 4, see rationale as previously discussed above.

Regarding claim 11, the program object version of claim 5, see rationale as previously discussed above.

Allowable Subject Matter

9. Claims 6 and 12 are objected to as being dependent upon a rejected base claim; but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

"... wherein the given program object includes one or more output properties having corresponding values that may be changed in response to execution of the given program object's associated function and, during execution, the given program object is configured to issue at least one ready event upon changing the values of its one or more output properties and one or more program objects may register for notification of the at least one ready event, further wherein the program instructions for decrementing the counter occur after all of the registered objects have been notified of the given object's at least one ready event..."

Correspondence Information

10. Any inquires concerning this communication or earlier communications from the examiner should be directed to Chuck O. Kendall who may be reached via telephone at (703) 308-6608.

The examiner can normally be reached Monday through Friday between 8:00 A.M. and 5:00 P.M. est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam *can be* reached at *(703) 305-4552.*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is *(703) 305-3900.*

For facsimile (fax) send to 703-7467239 official and 703-7467240 draft.

Chuck B. Kendall

Software Engineer Patent Examiner

United States Department of

WEI Y. ZHEN
PRIMARY PATENT EXAMINER